

BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

PERIODIC REPORTING
(PROPOSAL NINE)

Docket No. RM2020-1

**RESPONSES OF THE UNITED STATES POSTAL SERVICE
TO QUESTIONS 1-16 OF CHAIRMAN'S INFORMATION REQUEST NO. 3**
(June 10, 2020)

The United States Postal Service hereby provides its responses to the above listed questions of Chairman's Information Request No. 3, issued June 2, 2020. The questions are stated verbatim and followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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1. Please refer to the 2019 Facility Space Usage Study (FSUS).¹
 - a. Please provide a description for each facility type identified in the 2019 FSUS.
 - b. Please explain how operations or functions performed are similar and different for each facility type identified in the 2019 FSUS.

RESPONSE:

a. The 2019 FSUS was organized into 11 mail processing strata and six delivery and retail strata.

Mail Processing Facilities: A mail processing facility was defined to be any facility that housed mail processing equipment. The one exception was any delivery and retail facility that contained the automated delivery unit sorter (ADUS) only. Those facilities were grouped into a separate stratum which is discussed below in the delivery and retail section of this response.

Strata 1 through 4 included processing and distribution centers (P&DC) and processing and distribution facilities (P&DF), and their associated annexes, which did not house flat sequencing system (FSS) operations. A P&DF is generally smaller than a P&DC, but can contain the same processing equipment and operations. These strata were organized by facility size and also included a handful of smaller facilities designated as mail processing centers (MPC), mail processing facilities (MPF), delivery distribution centers (DDC), and customer service facilities (CSF). In addition, some

¹ 2019 *Facility Space Usage Study*, United States Postal Service Cost Attribution, September 2019, October 31, 2019 filed with the Petition (2019 FSUS). See 2019 FSUS at 11, 13.

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standalone auxiliary service facilities (ASF) were contained in these strata. Finally, the four air mail centers (AMC) and air mail facilities (AMF) described in the response to ChIR No. 2, question 1(a) were included in these strata. The facilities within these strata contained some combination of letter, flat, parcel, bundle, tray, and sack sorting equipment, as well as supporting manual operations. In addition, some facilities contained box section, window service, and/or bulk mail entry unit operations.

Strata 5 and 6 included P&DCs and P&DFs, and their associated annexes, which housed FSS operations. In addition, some standalone ASFs were included in these strata. These strata were also organized by facility size. The facilities within these strata contained the same combination of equipment as the facilities in strata 1 through 4, with the exception that they also contained FSS operations.

Strata 7 through 9 included the 21 network distribution centers. Stratum 7 included the NDCs that did not contain FSS operations and which were not co-located with a P&DC. Stratum 8 included the NDCs that contained FSS operations. Stratum 9 included the NDC that was co-located with a P&DC and which did not contain any FSS operations. All 21 NDCs contained parcel, bundle, tray, and sack sorting equipment, as well as supporting manual operations. The NDCs in stratum 8 also contained flat sorting equipment. The co-located NDC/P&DC facilities in stratum 9 also contained letter and flat sorting equipment.

Stratum 10 included the 5 international service centers (ISC). The ISCs also contained letter, flat, parcel, bundle, tray, and sack sorting equipment, as well as

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supporting manual operations. These operations, however, were used to process outbound and inbound international mail only.

Stratum 11 included the remote encoding center (REC). The REC contained computer equipment that was used to resolve mail piece images that were transmitted to the REC from postal processing equipment at the other mail processing facilities. After the images were processed by data conversion operators (DCO), the data were transmitted back to the mail processing facilities and were used to sort the mail to the proper destination at those facilities.

Delivery and Retail Facilities: The delivery and retail facilities were those facilities that housed postal carriers and other delivery-related operations.

Strata 12 through 16 included delivery and retail facilities that did not contain any mail processing equipment. These facilities housed carriers, carrier cases, and manual operations used to distribute letters, flats, parcels, and bundles. Some facilities also contained box section, window service, and/or bulk mail entry unit operations.

The Stratum 17 facilities contained the same operations as the facilities within the other delivery strata, with the exception that they also contained the ADUS, which was used to sort some of the parcel volume to the carrier route level.

b. The operations that were performed at the mail processing facilities within strata 1 through 6 were generally the same, with the exception that the "depth-of-sort" achieved at specific facilities may have differed.

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The NDCs within strata 7 through 9 were distinct from the plants within strata 1 through 6 in that they contained parcel sorting machines (PSM) and sack sorting machines (SSM) that were originally installed in those facilities when they were first activated in the mid-1970s. The PSM was designed to sort parcel-shaped mail to the 5-digit level, such that no additional processing would be required at P&DC/P&DFs. The SSM was designed to sort sacks to the 3-digit level.

The ISCs in strata 10 contained some of the same equipment as P&DCs/P&DFs, but used that equipment to sort inbound and outbound international mail. Two of the ISCs also contained fixed mechanization that was used to sort mail.

Unlike the other mail processing facilities, the REC did not contain any sorting equipment. It was a support facility that received mail piece image data from the other mail processing facilities. The DCO at this facility keyed image data into the REC computer system. These data were then transmitted back to the mail processing facilities and used to sort the mail.

The operations performed at delivery units within strata 12 through 17 were generally the same, with the exception that the strata 17 facilities used the ADUS to sort some of the parcels to the carrier route level. This operation was performed manually at non-ADUS facilities. The differences between main offices, stations, branches, and carrier annexes had more to do with the management reporting structure than any differences related to the postal operations contained within those facilities.

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2. Please refer to the 1999 FSUS.²
- a. Please provide a description for each facility type identified in the 1999 FSUS.
 - b. Please explain how operations or functions performed are similar and different for each facility type identified in the 1999 FSUS.
 - c. Please specify which types of facilities are no longer active.
 - d. For those types of facilities with name or operational changes between the 1999 and 2019 FSUS, please explain the reasons for the change(s) and provide a crosswalk where applicable.

RESPONSE:

a. A summary of the facilities that were included in the 1999 FSUS can be found in Table 2 in Question 12 below. The postal team that completed the 2019 FSUS did not contain any employees that also participated in the 1999 FSUS. The 1999 FSUS was conducted by a postal contractor. Consequently, the insight that the 2019 FSUS team can provide regarding the 1999 FSUS is, for the most part, limited to what was presented in Docket No. R2005-1, USPS-LR-K-62.

Overall, the types of facilities that were surveyed in the 1999 FSUS were the same as those included in the 2019 FSUS, with the exception that there were fewer facilities for some facility types. In addition, the sample strata were organized differently in 1999.

² See Docket No. R2005-1, Direct Testimony of Marc A. Smith on Behalf of the United States Postal Service (Docket No. R2005-1, USPS-T-13), April 8, 2005, at 21 (1999 FSUS).

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b. The relationship between the different facility types in 1999 was similar to what was described in the response to question 1(b) for the 2019 FSUS, but the specific operations located within any given facility may have changed since 1999.

Mail Processing: In 1999, a given P&DC/P&DF was more likely to contain operations and equipment that could process all shapes of mail. These operations were used to process both outgoing and incoming mail for a designated plant's service area (i.e., a three-digit ZIP Code grouping). In today's operating environment, some outgoing operations have been consolidated into a smaller number of plants. For example, cancellation equipment are no longer located at all plants. In addition, some plants have been organized along shape lines. For example, one plant in a specific metropolitan area is used to process letter-shaped mail while a second plant in that same metropolitan area is used to process flat-shaped and parcel-shaped mail.

Delivery and Retail: There are also some differences between the operations contained within delivery and retail facilities in 1999 and the operations contained in those facilities in 2019. In 1999, it was not unusual to find a delivery unit that delivery point sequenced (DPS) the letters for its 5-digit ZIP Code Areas. Some delivery units that had sufficient space contained delivery bar code sorters (DBCS) that were used for that purpose. Other delivery units contained the carrier sequence bar code sorter (CSBCS) and used those machines to DPS their letter mail. Over the past two decades as letter mail volumes have declined, DPS operations have been consolidated back into plants and the CSBCS machines have been retired. The only mail processing

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equipment currently located at delivery units is the ADUS that is used to sort some parcel-shaped mail to the carrier route level.

c.d. As stated above, the facility types that existed in 1999 still generally exist today, with the exception that there are fewer facilities for some facility types. For example, the number of P&DC/P&DFs has decreased since 1999 as the Postal Service has consolidated operations into fewer facilities due to volume declines. Some postal-owned facilities from which processing equipment was removed were reclassified as main offices. Other facilities were sold. Leased P&DC/P&DFs were generally vacated.

The number of AMC/AMFs decreased from 97 in 1999 to four in 2019 for the reasons described in the response to ChIR No. 2, question 1(a). Many of these facilities were operating in leased space which was vacated. Other AMC/AMF space was repurposed to support mail processing operations. For example, there were three facilities that were sampled in the 2019 FSUS that were once AMCs/AMFS, but which now house mail processing equipment and operate as annexes.

The number of RECs has also decreased since 1999. At one time, there were 55 remote encoding facilities (REF)/RECs. Due to technological improvements that have occurred over time, there is currently only one REC. The REF/REC space was generally leased space that was vacated when the facilities were closed.

Finally, two of the original nine Priority Mail processing centers (PMPCs) were closed and the operations were consolidated into other facilities. The remaining seven PMPCs were eventually converted to logistics and distribution centers (L&DC) and were

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later reclassified as P&DCs when the Postal Service abandoned the use of the L&DC terminology.

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3. The In-Office Cost System (IOCS) collects and identifies the facility type of sampled employees.³ However, in the updated 2018 IOCS Handbook, a description of the facility types as well as the data collector's reference resource for determining facility type was not included.⁴
- a. Please provide the IOCS data collector's reference resource document for determining the facility type identified as the "IOCS RG 3-5" in the IOCS Handbook. 2018 IOCS Handbook at 29.
 - b. If the facility names and types differ among the Postal Service's databases, please provide a crosswalk for any disparate facility names and types.

RESPONSE:

a. The requested reference document is provided in USPS-RM2020-1-2. It should be noted that a main purpose of the IOCS facility questions, particularly Q18A01, is to direct the flow of subsequent activity questions and limit the need to present irrelevant activity categories to data collectors, rather than as a source of facility type information for costing *per se*.

b. A correspondence between the facility types in IOCS and the comparable facility types from the 2019 FSUS is provided in Table A below. The IOCS (and FSUS) categories are intended to be invariant with respect to certain changes or non-substantive variations in facility designations. For example, several facilities currently designated as P&DCs were previously designated as L&DCs. In cases where facility

³ See Docket No. ACR2019, Library Reference USPS-FY19-37, December 29, 2019, Excel file "IOCSDataDictionaryFY19.xlsx," tab "Mainframe Layout," "Q15C01" and "Q18A01."

⁴ See Docket No. ACR2018, Library Reference USPS-FY18-45, February 8, 2019, folder "ACR 2018 ChIR 6.Public Files," subfolder "ChIR.6.Q.26 Approved Handbooks," PDF file "Handbook F-45_MAY_2018.pdf," Section 4-2 at 29 (2018 IOCS Handbook).

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types are co-located, IOCS responses should reflect the type of work area for the sampled employee at the time of the reading. Comparably, the 2019 FSUS separately identifies space by function for sites with co-located mail processing facilities, delivery/retail facilities, and/or higher-level administrative offices.

**Table A:
IOCS / FSUS Facility Type Comparison**

IOCS Facility Type(s)	FSUS Facility Type(s)
NDC/BMC	NDC (with or without FSS)
P&DC/P&DF/Mail Processing Annex/L&DC/DDC/AMC/AMF/STC/Surface Hub	P&DC/F (with or without FSS)
International Service Center (ISC) / Outbound International Gateway	ISC
P.O./Branch/Station/A.O./Box Section/Carrier Annex/Central Mail Mark-Up/CFS	Main Office, Station/Branch, Carrier Annex, Delivery Unit (ADUS site)
Detached Mail Unit (DMU, at mailer facility)	N/A - DMUs are located at mailer rather than Postal Service facilities
District or Area Office	NA - Some such space is co-located with other facility types; most is directly assigned from eFMS records for stand-alone facilities

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4. The Postal Service states that “the bin capacity (and therefore space requirements) for the delivery bar code sorters (DBCS), the current workhorse used to process letters and cards, has increased over time due to the addition of expansion modules.” Petition at 2. In the proposed Annual Compliance Report (ACR) updated facility file, in which the Postal Service plans on making future space adjustments given the number of machines removed and deployed, the Postal Service developed an average square footage per equipment category based on the 2019 FSUS.
- a. Please explain whether the total DBCS machine space requirements vary by facility size.
 - b. Please explain whether the total DBCS machine space requirements vary by DBCS machine size.⁵
 - c. Please explain whether the total DBCS machine space requirements vary by area and district and number of delivery points served.
 - d. Is it feasible for the Postal Service to use a more precise total DBCS space measurement (given either the facility size, machine type, area, district or number of delivery points served) rather than an overall average to adjust for removals or deployments? If so, please discuss whether that could be incorporated into future ACR facility files. If not, please explain.

RESPONSE:

There are three configurations of equipment related to this question: the combined input-output sub system (CIOSS), the delivery bar code sorter (DBCS), and the DBCS input-output sub system (DIOSS). The number of bins per machine varies in the field. Each DBCS module generally contains four rows of four bins, for a total of 16 bins. Consequently, the space requirements for an individual module are relatively small.

⁵ The Postal Service states that some machines vary in size. 2019 FSUS at 33.

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Table B below shows the number of machines by bin configuration by strata for the three equipment types. These data are also used to calculate the average number of bins by strata for the CIOSS (highlighted in yellow), DBCS (highlighted in blue), and DIOSS (highlighted in green). In addition, the nationwide average number of bins for each equipment type can be found in the last column of the highlighted rows. Overall, the average CIOSS appears to be two modules shorter than a DBCS and the average DIOSS appears to be one module shorter than a DBCS. The CIOSS, however, contains a longer feeding mechanism than either the DBCS or the DIOSS due to the additional labeling mechanisms required to process returned and forwarded mail. In addition, these three machines are often lined up next to each other in most plants, regardless of the specific number of bins, with the feeding mechanisms located directly adjacent to an aisle. Consequently, the Postal Service proposed using the average space for all three equipment types to make the annual equipment adjustments in the USPS-FY18-8 facility file.

a. Strata 1 through 4 represent non-FSS facilities that are larger in size as the stratum numbers increase. For the FSS facilities, the stratum 6 facilities are larger than the stratum 5 facilities. On average, the number of bins per machine does not appear to vary substantially as a result of facility size.

b. As the size of the machines increases, the space required to accommodate these machines would also increase.

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c. The extent to which the machine sizes may vary by area and district is unknown because such an analysis has not been conducted. Overall, the number of delivery points in a given ZIP Code can affect the machine size requirements. However, the number of delivery points can vary substantially between ZIP Codes within any given district and district personnel would normally balance the overall number of delivery points for the various ZIP Codes contained on any given sort plan.

d. Yes. Space data specific to each machine size/configuration could be used as an alternative.

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**Table B:
CLOSS, DBCS, and DIOSS Bin Data**

Machine	Bins	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	Total
CLOSS	63	0	0	0	4	0	0	0	0	0	0	0	4
	111	0	0	3	0	0	0	0	0	0	0	0	3
	126	0	7	3	0	0	0	0	0	0	0	0	10
	142	0	0	2	2	0	3	0	0	0	0	0	7
	158	0	0	2	0	0	0	0	0	0	0	0	2
	174	0	1	5	8	0	0	0	0	0	0	0	14
	190	0	3	2	8	5	2	0	0	0	0	0	20
	206	0	11	10	1	0	5	0	0	0	0	0	27
	222	1	19	5	7	2	11	0	0	3	0	0	48
	238	0	1	2	0	0	0	0	0	0	0	0	3
	254	0	1	4	4	0	4	0	0	0	0	0	13
	270	0	1	0	4	0	0	0	0	0	0	0	5
	286	0	1	0	0	0	0	0	0	0	0	0	1
	302	0	0	1	0	0	0	0	0	0	0	0	1
	Total	1	45	39	38	7	25	0	0	3	0	0	158
	Avg Bins	222	204	193	192	199	212	NA	NA	222	NA	NA	200
DBCS	142	0	1	0	0	0	0	0	0	0	0	0	1
	174	1	0	5	0	0	0	0	0	0	0	0	6
	190	5	4	22	4	0	1	0	0	0	0	0	36
	206	51	27	31	28	3	41	0	0	0	0	0	181
	222	119	180	199	112	111	250	0	0	9	0	0	980
	238	78	133	144	109	48	75	0	0	0	0	0	587
	254	39	86	122	121	40	55	0	0	0	0	0	463
	270	44	100	117	135	65	105	0	0	0	0	0	566
	286	9	18	3	0	0	3	0	0	0	0	0	33
	302	2	10	10	32	16	27	0	0	0	0	0	97
	Total	348	559	653	541	283	557	0	0	9	0	0	2,950
	Avg Bins	234	242	239	248	245	239	NA	NA	222	NA	NA	241
DIOSS	142	0	0	0	0	0	1	0	0	0	0	0	1
	158	1	4	0	0	1	0	0	0	0	0	0	6
	174	3	0	2	5	1	0	0	0	0	0	0	11
	190	4	4	7	1	1	1	0	0	0	0	0	18
	206	16	17	36	16	12	23	0	0	2	0	0	122
	222	40	49	37	74	21	69	0	0	2	1	0	293
	238	23	34	11	9	9	14	0	0	0	4	0	104
	254	13	16	23	16	7	2	0	0	0	0	0	77
	270	9	12	6	14	2	5	0	0	0	0	0	48
	286	2	2	0	0	0	0	0	0	0	0	0	4
	302	0	0	4	0	0	0	0	0	0	0	0	4
	Total	111	138	126	135	54	115	0	0	4	5	0	688
	Avg Bins	229	230	227	228	224	222	NA	NA	214	235	NA	227

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5. Please define the acronyms and describe each equipment type for which the Postal Service plans on adjusting the facility space estimates provided in Library Reference USPS-RM2020-1/1, Excel file "FACILITY19.PROP9.xlsx," tab "Equip Adjust."⁶
- a. Please specify, for each equipment and facility type listed, whether the total associated equipment space can vary by facility size, machine model, area or district, and number of delivery points served.
 - b. For the equipment with space estimates that may vary materially from the overall average (given either the facility size, machine model, area/district or number of delivery points served), is it feasible for the Postal Service to develop a more precise equipment space estimate with which to adjust for future removals and or deployments? If so, please discuss whether that could be incorporated in future ACR facility files. If not, please explain.

RESPONSE:

The Postal Service set up the 'FACILITY19.PROP9.xlsx' file contained in USPS-RM2020-1-1 so that it could accommodate equipment removals and deployments for the following equipment if necessary.

ADUS: Advanced Delivery Unit Sorter (P&DC/P&DF)

ADUS: Advanced Delivery Unit Sorter (delivery and retail facility)

AFCS: Advanced Facer Canceler System

AFCS200: Advanced Facer Canceler System model 200

AFSM100: Advanced Flat Sorting Machine model 100

APBS: Advanced Parcel and Bundle Sorter

APPS: Advanced Package Processing System

CIOSS: Combined Input-Output Sub System

⁶ See Library Reference USPS-RM2020-1/1, folder "Prop.9.Fldr.1.Facility.Files," Excel file "FACILITY19.PROP9.xlsx," tab "Equip Adjust." The Postal Service modified "the Docket No. ACR2018 version of the facility file [] to accommodate the new FSUS data, and the proposed new version is presented as 'FACILITY19.PROP9.xlsx.'" Petition at 4.

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DBCS: Delivery Bar Code Sorter

DIOSS: DBCS Input-Output Sub System

EPPS: Enhanced Package Processing System

FSS: Flats Sequencing System

HSTS: High Speed Tray Sorter

HSUS: High Speed Universal Sorter

HTPS: High Throughput Package Sorter

LCREM: Low Cost Reject Encoding Machine

LCTS: Low Cost Tray Sorter

LCUS: Low Cost Universal Sorter

RCS: Robotic Containerization System

SPBS: Small Parcel and Bundle Sorter

SPSS: Small Parcel Sorting System

UFSM1000: Universal Flat Sorting Machine model 1000

USS: Universal Sorting System

a. No analysis has been conducted to determine the extent to which the machine sizes and space requirements would vary by area, district, or the number of delivery points. It is assumed that facilities with service areas that contain more delivery points would generally have larger machines that contain more bins. In addition, some larger equipment configurations can only fit in larger facilities.

The machine size and space requirements for the ADUS can vary. There are currently ADUS machines located at some small plants and at delivery and retail facilities. On average, the machines located at the plants are larger, which is why the

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'Equip Footprint' worksheet in the FACILITY19.PROP9.xlsx' file contains separate space values for both facility types.

The machine size and space requirements for the AFCS and the AFCS200 do not vary. These machines are typically installed within a network of conveyors that feed the machines.

The machine size and space requirements for the AFSM1000 do not vary a great deal given that the machines all contain the same number of bins. However, these machines can also contain support equipment that affects the total space requirements. Some machines contain the automated induction (AI) system and/or the automated tray handling system (ATHS). An AFSM100 that does not have the AI system would require additional space in which the mail can be manually prepped.

The machine size and space requirements for the APBS can vary. The current generation of machines contains between 100 and 200 bins. In addition, some APBS feed systems are installed next to the machines which require additional space.

The machine size and space requirements for the APPS can vary. The current generation of machines contains between 100 and 400 bins.

The machine size and space requirements for the CIOSS, DBCS, and DIOSS can vary. Please see the response to question 4.

There are two EPPS that have been installed at new postal facilities during the past two years. These machines occupy a significant amount of facility space and

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contain several hundred bins. It is unlikely that these machines are going to be removed or redeployed in the foreseeable future. In that sense, they are analogous to the parcel sorting machines (PSM) found at the NDCs.

The machine size and space requirements for the FSS do not vary. Each machine contains the same number of bins and support equipment.

The machine size and space requirements for the HSTS can vary.

The machine size and space requirements for the HSUS can vary.

There are currently four HTPS machines located at two facilities. These machines occupy a significant amount of facility space and contain several hundred bins. It is unlikely that these machines are going to be removed or redeployed in the foreseeable future. In that sense, they are analogous to the PSMs found at the NDCs.

The machine size and space requirements for the LCREM do not vary. The amount of floor space required for this machine is quite small.

The machine size and space requirements for the LCTS can vary.

The machine size and space requirements for the LCUS can vary.

The machine size and space requirements for the RCS do not vary.

All SPBS machines have now been converted to APBS machines. Consequently, this machine type can be removed from the 'Equip Footprint' and 'Equip Adjust' worksheets.

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The machine size and space requirements for the SPSS can vary. The current generation of machines contains between 144 and 196 bins.

The machine size and space requirements for the UFSM1000 do not vary. This machine has largely been retired from service. There are currently three machines that are still being used in mail processing facilities.

The machine size and space requirements for the USS can vary.

b. Yes. Space data specific to each machine size/configuration could be used as an alternative. It should be noted, however, that many of the larger machines that are used to process trays, bundles, and parcels are unlikely to be removed or redeployed from year to year. An alternative would be to enter the actual space associated with a given machine, or machines, in the relatively rare instances where that equipment is removed in a given fiscal year.

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6. The Postal Service notes that “[t]here are other circumstances that affect how much space a machine requires, such as the location of columns in a given facility. In addition, some machines vary in size. The actual workroom floor space required to support a given machine could therefore be more than the average space value.” 2019 FSUS at 33. Please identify which of the Postal Service’s data systems includes the size of the machine and space needed given other circumstances “such as the location of columns.” *Id.* If none exist, please explain how machines that are more than the average space value will be accounted for in the Postal Service’s ACR adjustments for equipment removals and deployments.

RESPONSE:

There are no postal data systems that can provide machine space requirements, including facility-specific requirements such as the placement of columns in a building. The data that will be used to calculate the averages for the purpose of making space adjustments in USPS-FY18-8, however, are the data that were collected as part of the 2019 FSUS update. Consequently, these figures will include the actual space requirements at postal facilities and would include any additional space required due to building limitations such as the location of columns in any given building.

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7. The Postal Service notes that “[d]espite the fact that the cost analysis associated with the use of facility space has been updated annually to reflect additions and subtractions of equipment types and sizes in the relevant ACR materials...the space adjustments were approximations and did not involve a comprehensive approach to estimating space proportions as is done in this proposal.” Petition at 3. Please refer to Table 1 for the following questions.

**Table 1
Comparison of Select 2019 FSUS Operation/Function Space Estimates and
Docket ACR2018, USPS-FY18-8 Adjusted (1999 FSUS) Space Estimates**

Space No.	Operation / Function	2019 FSUS Gross Square Feet	Docket No. ACR2018, USPS-FY18-8, Adjusted (1999 FSUS) Square Feet	Difference
10	MODS 14 PRIORITY	902,869	2,373,112	-1,470,242
39	NONMODS IOCS ALLIED	13,645,140	30,285,177	-16,640,037
44	NONMODS IOCS D.PO BOX	12,250,838	1,146,264	11,104,574
48	NONMODS IOCS MANP	19,141,118	6,064,403	13,076,715
54	Post Office Boxes / Caller Service	12,074,197	26,361,116	-14,286,919
56	City Carrier	35,255,807	25,784,724	9,471,084
57	Rural Carrier	21,330,487	8,616,533	12,713,954
Source: Commission modified from 2019 FSUS at 31; Docket No. ACR2018, Library Reference USPS-FY18-8, December 28, 2018, folder “FY18.8_File,” Excel file “FCILITY18.xlsx,” tab “FY 2018 Facility Data.”				

- a. Please specify the reason(s) for the decrease in the “MODS 14 PRIORITY” space estimate between the 2019 FSUS and Docket No. ACR2018 Library Reference USPS-FY18-8 space estimate.
 - i. Please include in your response the reason(s) why the Docket No. ACR2018 adjusted space estimate did not materially adjust for the space difference between the 1999 FSUS and the 2019 FSUS.
 - ii. The October 2004 Handbook F-45, Data Collection User’s Guide for In-Office Cost System includes a facility description for “Priority Mail processing centers.”⁷ Please confirm that “Priority Mail processing centers” are no longer active.⁸

⁷ USPS Periodic Report, Handbook F-45 Data Collection User’s Guide for In-Office Cost System, July 21, 2009, Section 6.1, Page 6-6.

⁸ The Postal Service states that Priority Mail processing centers were discontinued in Docket No. RM2017-1, Comments of the United States Postal Service in Response to Order No. 4402, April 16, 2018, at 13.

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- (1) If confirmed, please specify what other types of facilities, operations and functions currently contain the space usage for what previously was termed "Priority Mail processing centers."
 - (2) If not confirmed, please specify the total number and the number included in the 2019 FSUS sample.
- b. Please specify the reason(s) for the decrease in the "NONMODS IOCS / ALLIED" space estimate between the 2019 FSUS and Docket No. ACR2018, Library Reference USPS-FY18-8 space estimate. Please include in your response the reason(s) why the Docket No. ACR2018 adjusted space estimate did not materially adjust for the space difference between the 1999 FSUS and the 2019 FSUS.
- c. Please specify the reason(s) for the increase in the "NONMODS IOCS / D.PO BOX" space estimate between the 2019 FSUS and Docket No. ACR2018, Library Reference USPS-FY18-8 space estimate. Please include in your response the reason(s) why the Docket No. ACR2018 adjusted space estimate did not materially adjust for the space difference between the 1999 FSUS and the 2019 FSUS.
- d. Please specify the reason(s) for the decrease in the "Post Office Boxes / Caller Service" space estimate between the 2019 FSUS and Docket No. ACR2018, Library Reference USPS-FY18-8 space estimate. Please include in your response the reason(s) why the Docket No. ACR2018 adjusted space estimate did not materially adjust for the space difference between the 1999 FSUS and the 2019 FSUS.
- e. Please specify the reason(s) for the increase in the "NONMODS IOCS / MANP" space estimate between the 2019 FSUS and Docket No. ACR2018, Library Reference USPS-FY18-8 space estimate. Please include in your response the reason(s) why the Docket No. ACR2018 adjusted space estimate did not materially adjust for the space difference between the 1999 FSUS and the 2019 FSUS.
- f. Please specify the reason(s) for the increase in the "City Carrier" space estimate between the 2019 FSUS and Docket No. ACR2018, Library Reference USPS-FY18-8 space estimate. Please include in your response the reason(s) why the Docket No. ACR2018 adjusted space estimate did not materially adjust for the space difference between the 1999 FSUS and the 2019 FSUS.
- g. Please specify the reason(s) for the increase in the "Rural Carrier" space estimate between the 2019 FSUS and Docket No. ACR2018, Library Reference USPS-FY18-8 space estimate. Please include in your response the reason(s) why the Docket No. ACR2018 adjusted space

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estimate did not materially adjust for the space difference between the 1999 FSUS and the 2019 FSUS.

RESPONSE:

a. The 2019 FSUS results for the MODS PRIORITY and the MODS MANP operations cannot be viewed in isolation. In the Petition, the Postal Service proposed that the sum of the space in the MODS PRIORITY and MODS MANP operations be redistributed using the percentage of work hours associated with each operation. Petition at 5. Individually, the changes in the space estimates between the 1999 study and the 2019 study differed substantially. When these operations were combined, however, the total space estimate from the 2019 FSUS was only 3.37 percent higher than the total space estimate derived from the 1999 FSUS data. Please see Table C below.

**Table C:
MANP and PRIORITY Operation Space Comparison**

Operation	USPS-FY18-8 SPACE	2019 FSUS SPACE	Percent Difference
MODS MANP	929,759	2,511,204	170.09%
MODS PRIORITY	2,373,112	902,869	-61.95%
Total	3,302,870	3,414,073	3.37%

a(i). No adjustments were made to the Docket No. ACR2018 figures because the 2019 FSUS had not yet been completed. Therefore, there was no premise for making such an adjustment.

a(ii). Confirmed. As stated above in the response to question 2(c)(d), two of the original nine PMPCs were closed and the operations were consolidated into other

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facilities. The remaining seven PMPCs were converted into L&DCs and were later reclassified as P&DCs. In the 2019 FSUS study, the former PMPCs can be found in mail processing stratum 3 (sites 14, 23, and 28) and stratum 5 (sites 3, 7, 9, and 15).

b. In the 2019 FSUS, the only space that was classified as NONMODS ALLIED space was the platform space at delivery and retail facilities. The space values were taken directly from eFMS. It is unclear why the amount of space in the 1999 FSUS was so much higher than the 2019 FSUS values. In addition, see the response to question 7, parts f and g below.

No adjustments were made to the Docket No. ACR2018 figures because the 2019 FSUS had not yet been completed. Therefore, there was no premise for making such an adjustment.

c.d. A comparison of the FSUS 2019 and USPS-FY18-8 space values is shown below in Table D. The 2019 FSUS sampled space for "back office" post office box operations was assigned to the NONMODS IOCS D.PO BOX operation. There was no corresponding space measured in the 1999 FSUS, but adjustments were later incorporated into the USPS-FY18-8 analysis.

These "back office" operations would be those activities that take place on the work room floor side of the wall opposite the box section lobby. For example, this area would include the space required for a clerk to stage box section mail and case that mail into the individual box section holdouts. The sampled space for the post office box lobby area itself was assigned to the Post Office Boxes / Caller Service function.

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**Table D:
Post Office Box Operations / eFMS Space Comparisons**

Operation/Function	USPS-FY18-8 SPACE	2019 FSUS SPACE	Percent Difference
NONMODS IOCS D.PO BOX	1,146,264	12,250,838	968.76%
Post Office Boxes Caller Service	26,361,116	12,074,197	-54.20%
Total	27,507,380	24,325,035	-11.57%
Window Service	18,006,390	18,220,608	1.19%
Self-Service Postal Center	2,460,089	738,228	-69.99%
Post Office Boxes / Caller Service	26,361,116	12,074,197	-54.20%
Total	46,827,594	31,033,032	-33.73%
eFMS Field 15	27,827,833	27,827,833	NA

While the 2019 FSUS space that was measured for the NONMODS IOCS D.PO BOX operation space differed significantly from the USPS-FY18-8 space estimate, the sum of the space estimates for the NONMODS IOCS D.PO BOX operation and the Post Office Boxes / Caller Service function were of a similar order of magnitude.

The "Space Survey" portion of eFMS includes space for the total customer service and post office box lobby areas which is contained in field 15. When the eFMS data were pulled in 2019, the total field 15 value was 27,827,833 square feet. Theoretically, this space should be equal to the sum of the window service, self-service postal center, and post office boxes / caller service functions. The data in Table D show that the 2019 FSUS results are much closer to the field 15 value than the USPS-FY18-8 value. All things considered, these data would seem to suggest that a significant amount of the NONMODS IOCS D.PO BOX space in USPS-FY18-8 was incorrectly assigned to the post office box / caller service category.

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No adjustments were made to the Docket No. ACR2018 figures because the 2019 FSUS had not yet been completed. Therefore, there was no premise for making such an adjustment.

e. See the response to part a.

No adjustments were made to the Docket No. ACR2018 figures because the 2019 FSUS had not yet been completed. Therefore, there was no premise for making such an adjustment.

f. - g. As stated above in the response to part b, the 2019 FSUS space assigned to the NONMODS IOCS ALLIED is much less than the space that was assigned to this operation in the 1999 FSUS. At the same time, the space assigned to the city carrier and rural carrier functions is much higher than the space that was assigned to these functions in the 1999 FSUS. Table E below contains the space for the ALLIED operation and the two carrier functions.

**Table E:
NONMODS ALLIED and Carrier Space**

Operation / Function	USPS-FY18-8 SPACE	2019 FSUS SPACE	Percent Difference
NONMODS IOCS ALLIED	30,285,177	13,645,140	-54.94%
City Carrier	25,784,724	35,255,807	36.73%
Rural Carrier	8,616,533	21,330,487	147.55%
Total	64,686,433	70,231,434	8.57%

In the 2019 FSUS, the only space that was assigned to the ALLIED operation was the platform space. This space was taken directly from eFMS. The space that was assigned to the carrier functions was that space which included the carrier cases and

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any related staging space. Delivery and retail units do not always maintain pronounced aisles between rows of carrier cases. This space was generally assigned to the carrier functions unless it contained some other operation, such as a manual letter, manual flat, or manual parcel sorting operation.

The total space values in Table E are of similar magnitude. This would seem to suggest that some space which was classified as ALLIED space in the 1999 FSUS has been classified as carrier space in the 2019 FSUS.

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8. In the 1999 FSUS, the Cost and Revenue Analysis space category number 21 ("Platform") and number 32 ("LDC 43 – Unit Distribution - Manual/LDC 44 – Post-Office Box Distrib.") included a large amount of "exterior square feet."⁹ Do both comparable space categories in the 2019 FSUS include the same space and definition for "exterior square feet?" If yes, please provide the amount of exterior square feet for the referenced space categories estimated by the 2019 FSUS. If not, please explain.

RESPONSE:

Field 24 in the "space survey" section of eFMS contains open platform space. The 2019 FSUS field 24 space is summarized in Table F below for mail processing and delivery and retail facilities. The field 24 value for the MODS 17 1 PLATFORM operation is comparable to the platform category 21 described above.

**Table F:
eFMS Field 24 Open Platform Space**

Operation	Facilities Covered	eFMS Field 24 Open Platform Sq Ft
MODS 17 1PLATFORM	P&DC/P&DF	1,330,381
ALL LDCS INTL ISC	ISC	58,248
NDCS 17 PLA	NDC	8,053
NONMODS IOCS ALLIED	Delivery and Retail Facilities	10,517,883
Total		11,914,565

Category 32 was associated with a function 4 facility operation that no longer exists as a result of the cost pool reorganization that was presented in Docket No. RM2018-10, Proposal Seven, and approved by the Commission in Order No. 4855 (October 12, 2018).

⁹ Docket No. R2005-1, USPS-T-13 at 34.

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The tasks formerly included in the MODS LDC43/LDC44 operations have now been incorporated into the NONMODS IOCS D.PO BOX, NONMODS IOCS MANF, NONMODS IOCS MANL, and NONMODS IOCS MANP operations. During the data collection phase of the 2019 FSUS study, there were no instances where these operations were being performed on exterior platform space. Consequently, the exterior platform space associated with these tasks would be zero.

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9. The Proposal Nine facility-related cost impacts include a decrease of approximately \$317.7 million for Post Office Box Service cost. Petition at 14.
- a. Please discuss whether the increase of approximately 11.1 million square feet in the 2019 FSUS space category estimate for the "NONMODS IOCS D.PO BOX"¹⁰ space category impacted the decrease in Post Office Box Service cost under the Proposal Nine methodology.
 - b. Please discuss whether the decrease of about 14.3 million square feet in the 2019 FSUS space category estimate for the "Post Office Boxes / Caller Service"¹¹ space category impacted the decrease in Post Office Box Service cost under the Proposal Nine methodology.
 - c. Please describe the cost to products distribution key for both the "NONMODS IOCS D.PO BOX" and "Post Office Boxes / Caller Service" space category.

RESPONSE:

a. None of the space for the NONMODS IOCS D.PO BOX category is distributed to Post Office Box Service. Therefore, to the extent that the increase in this space category was accompanied by a corresponding decrease in other mail processing space pools (such as Non-MODS MANL, Allied, or Misc), the NONMODS IOCS D.PO BOX operational space has no impact on the Post Office Box Service costs. However, if any of the increase in this space category was accompanied by a corresponding decrease in the post office box / caller service space, then there may have been an impact on the Post Office Box Service costs as a result. It is not possible to quantify how much of the increase in the NONMODS IOCS D.PO BOX space category can be

¹⁰ See Table 1, *supra*

¹¹ See *id.*

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linked to a corresponding decrease in the post office box / caller service space category.

b. The decrease in Post Office Box Service costs is caused by the decrease to the measured post office box / caller service space in the 2019 FSUS, as described in the response to part c below.

c. The distribution key for the "NONMODS IOCS D.PO BOX" space category is the corresponding labor distribution key for the Non-MODS D.PO BOX cost pool (see "USPS-FY18-7 part5.xlsx", tab "V-1. Space DKs", column AQ). This is the distribution key used for the costs associated with the mail that is placed in PO Boxes.

The total post office box / caller service space is disaggregated into post office box space and caller service space using caller service data (see Docket No. R2000-1 USPS-T-29 Workpaper IV). The average number of square feet allocated per firm for caller service is divided by the separations per caller to calculate the average number of square feet allocated per caller. This figure is then multiplied by the number of callers (see USPS-FY18-4) to calculate the square feet associated with caller service. This square footage is then subtracted from the total post office box / caller service space to calculate the post office box space.

This distribution methodology remains unchanged in the FSUS. The total square feet allocated to caller service is the same as reported in USPS-FY18-8, but the total space identified as post office box / caller service in the FSUS decreased. Therefore,

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the proportion of this space that is attributed to caller service increased. In the FSUS, 4.24 percent of the space was distributed to caller service and 95.76 percent to post office boxes. In USPS-FY18-8, 1.942 percent of the space was distributed to caller service and 98.058 percent to post office boxes.

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- 10.** The Proposal Nine facility-related cost impacts result in an overall decrease in total volume variable and product specific costs of approximately \$75.6 million. Petition at 14.
- a. Please identify the cost segments and components for which institutional costs increase under the Proposal Nine methodology.
 - b. Please describe the distribution key(s) used for the cost segments and components identified under subpart a. of this question.
 - c. The Proposal Nine "CRA Inputs," compared to Docket No. ACR2018, show an overall decrease of about 304 thousand square feet and a reduction of about a billion dollars in rental value for the combined space categories identified as "institutional."¹² Please discuss the impact of this reduction on the volume-variable/product specific and "other" costs shown in Table 2 of the Postal Service's Petition. Petition at 14.

RESPONSE:

a. - b. Table G below identifies the distribution key and the institutional cost increase for the relevant cost segments and components.

¹² Compare Library Reference USPS-RM2020-1/1, folder "Prop.9.Fldr.1.Facility.Files," Excel file "FACILITY19.PROP9.xlsx," tab "CRA Inputs" with Docket No. ACR2018, Library Reference USPS-FY18-8, December 28, 2018, folder "FY18.8_Files," Excel file "FCILTY18.xlsx," tab "CRA Inputs," "Institutional" space categories are identified in Library Reference USPS-RM2020-1/1, folder "Prop.9.Fldr.1.Facility.Files," Excel file "FACILITY19.PROP9.xlsx," tab "Component Variability."

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**Table G:
Institutional Cost Increase and Distribution Key
By Cost Segments and Components**

Component Name	Component Number	Cost Segment	Distribution Key ¹	Institutional Costs Increase (\$000)
Supervision of Admin. and Support Activities	483	2.3	527	\$ 19
Time & Attendance	477	3.3.2	527	\$ 16
Custodial Personnel	74	11.1.1	1099	\$ 35,121
Contract Cleaners	81	11.1.2	1099	\$ 1,274
Plant & Building Equipment Maintenance	79	11.3	1099	\$ 10,548
Fuel	166	15.2.1	1099	\$ 2,082
Utilities	167	15.2.2	1099	\$ 16,043
Custodial and Building	176	16.3.1	1099	\$ 3,969
USPS Security Force	194	18.1.4.1	1099	\$ 1,501
Repriced Annual Leave	292	18.3.1	526	\$ 89
Holiday Leave	487	18.3.2	526	\$ 27
Civil Service Retirement Supplemental Liability	214	18.3.3.1	433	\$ 269
Workers Comp Current Year	531	18.3.4.1	433	\$ 1,135
Unemployment Compensation	453	18.3.5	433	\$ 31
Retiree Health Benefits (Current Year)	202	18.3.6.1	433	\$ 3,461
Total				\$ 75,584

[1] Distribution Keys:

433 – PESSA Dist Key – Servicewide Benefits. Consists of the final C Report distribution of total Postal labor costs.

527 – PESSA Dist Key – Time & Attendance. Includes the final C Report distribution of Postal Labor Costs in cost segments 1-12 other than Time and Attendance, and Postal Inspection Service in cost segment 18.

1099 – Space Distribution Key. This distribution key is the subject of the instant proposal.

A complete description of these distribution keys is contained in USPS-FY18-31, directory CRA Model Files, workbook FY18.Public.cntl.

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c. The "Total Rental Value Key" (i.e. Component 1199) is impacted by new rental value proportions derived in the 'FACILITY.19.PROP9' workbook in USPS-RM2020-1-1. This revised total rental value key is used to redistribute the FY18 product costs for components 165, 236, 237, and 587.¹³ The differences in product costs due to the new distribution key are totaled across these components and added to the original FY18 costs depicted in Table 2 of the Postal Service's Petition, "Total Vol Var and Prod Spec ACR 2018". These results are presented in Table H below.

Overall, there is no impact to the total volume variable and product specific costs or other costs since volume variable imputed rents still exceeded accrued costs and thus were constrained by the cap.¹⁴

¹³ Component 587 is distributed on all Depreciation, which is the sum of Vehicle Depreciation, Equipment Depreciation, and Building & Leasehold Depreciation. Building & Leasehold Depreciation is 53 percent of the total cost for all Depreciation. Therefore, 53 percent of the total cost for Interest component 587 is distributed using the Total Rental Value Key (Component 1199).

¹⁴ See CRA Summary Descriptions, folder "Rule 39 CFR Sec 3050.60f_ReportFY18.zip," folder "SummaryDescriptionsFY2018.zip," folder "CRA.Summary.Description.FY18," Word file "CS15-18.doc," Section "15-1," at 15-5 (July 1, 2019).

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**Table H:
Cost Impact of Change in Rental Value Distribution Keys (Component 1199)**

		Total Vol Var & Prod Spec ACR 2018	Total Vol Var & Prod Spec Proposal A 1199 Impact	Difference	Percentage Difference
		(\$000)	(\$000)	(\$000)	
DOMESTIC MARKET DOMINANT PRODUCTS					
First-Class Mail					
Single Piece Letters	3	5,048,685	5,067,202	18,517	0.37%
Single Piece Cards	4	182,871	183,762	891	0.49%
Total Single Piece Letters and Cards	5	5,231,556	5,250,964	19,408	0.37%
Presort Letters	8	4,396,232	4,425,650	29,417	0.67%
Presort Cards	9	170,450	171,424	974	0.57%
Total Presort Letters and Cards	10	4,566,683	4,597,074	30,391	0.67%
Flats	14	1,551,207	1,554,021	2,814	0.18%
Total First-Class	80	11,349,446	11,402,059	52,613	0.46%
USPS Marketing Mail					
High Density and Saturation Letters	21	580,259	583,162	2,903	0.50%
High Density and Saturation Flats/Parcels	22	1,357,287	1,361,627	4,341	0.32%
Every Door Direct Mail Retail	24	47,391	47,554	163	0.34%
Carrier Route	23	1,703,674	1,704,036	362	0.02%
Letters	25	4,853,058	4,882,079	29,021	0.60%
Flats	26	2,396,759	2,402,643	5,884	0.25%
Parcels	27	73,421	74,381	960	1.31%
Total USPS Marketing Mail	81	11,011,849	11,055,482	43,634	0.40%
Periodicals					
In County	31	83,266	83,796	530	0.64%
Outside County	32	1,801,243	1,804,205	2,963	0.16%
Total Periodicals	82	1,884,508	1,888,001	3,493	0.19%
Package Services					
Alaska Bypass Service	45	18,720	18,720	0	0.00%
Bound Printed Matter Flats	42	133,003	132,773	-229	-0.17%
Bound Printed Matter Parcels	43	292,050	295,348	3,298	1.13%
Media/Library Mail	44	359,531	359,582	51	0.01%
Total Package Services	83	803,304	806,424	3,120	0.39%
U.S. Postal Service	85	331,526	330,983	-543	-0.16%
Free Mail	86	34,077	34,361	284	0.83%
Total Domestic Market Dominant Mail	90	25,414,710	25,517,310	102,600	0.40%
Special Services					
Ancillary Services					
Certified Mail	51	521,772	527,121	5,349	1.03%
COD	52	2,865	2,881	16	0.56%
Insurance	54	48,453	48,516	63	0.13%
Registered Mail	55	18,129	17,946	-182	-1.00%
Stamped Envelopes	56	10,798	10,783	-14	-0.13%
Stamped Cards	57	208	208	0	-0.01%
Other Ancillary Services	58	227,621	231,368	3,748	1.65%
Address Management Services	61	6,262	6,262	0	0.00%
Caller Service	62	26,298	26,200	-98	-0.37%
Money Orders	73	145,073	144,908	-165	-0.11%
Post Office Box Service	74	634,371	450,697	-183,674	-28.95%
Total Domestic Market Dominant Services	91	1,641,848	1,466,890	-174,958	-10.66%
Total Domestic Market Dominant Costs	92	27,056,557	26,984,200	-72,358	-0.27%
Total Domestic Competitive Costs	192	13,442,937	13,505,460	62,523	0.47%
INTERNATIONAL MAIL AND SERVICES					
	185	2,035,571	2,045,406	9,835	0.48%
TOTAL VOL VAR & PROD SPEC	198	42,535,066	42,535,066	0	0.00%

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11. The Postal Service states that “the space estimates for the [2019] FSUS sample were inflated to population estimates using nationwide space data.” 2019 FSUS Report at 34. It had initially planned on using the facility database records (FDB), however, in the FDB, it found that “duplicate space records must be deleted from any FDB dataset” and “the process used to maintain these datasets is time consuming and tedious.” *Id.* Ultimately, the Postal Service decided to use the Electronic Facility Management System (eFMS) data to inflate the 2019 FSUS sample statistics to population statistics by strata. 2019 FSUS at 5, 35. In the eFMS data, the Postal Service states that there is one record that contains one space total despite the space being used for multiple “facility-types.” 2019 FSUS at 5.
- a. Please describe how the single space total in the eFMS was partitioned to the space identified as a “DELV_RETAIL” / “MAIN_PO,” “CUST_SERV” / “VMF,” and “NET_OPS” / “PDC_PDF” in the Facility Database System.¹⁵
 - b. Please describe the similarities and differences between the process for inflating the 1999 FSUS sample and 2019 FSUS sample to the population estimates.

RESPONSE:

a. There are some facilities for which there are multiple records in FDB. The space data associated with those records are exactly the same. Consequently, the records would need to be "scrubbed" which is a time consuming process subject to error. This is the reason why the Postal Service chose to use the EDW data, rather than the FDB data, to inflate the sample result into population results.

b. The 1999 FSUS sample results appeared to be inflated to population results using the separate ratio estimator. In the 2019 FSUS, the Postal Service used the combined ratio estimator to inflate the sample results into the population results.

¹⁵ See example illustrated in the 2019 FSUS at 5.

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12. As shown in Table 2 below, the 1999 FSUS sample design appears to have sampled from more facility type strata than the 2019 FSUS.¹⁶
- a. To the extent possible, please show the 2019 FSUS population and sample in the same comparable groups and columns as those shown in the table below illustrating the 1999 FSUS facility size, type and strata groups.¹⁷
 - b. For all 2019 FSUS facility names and types that are no longer comparable to the 1999 FSUS facilities, please explain why they are no longer comparable.
 - c. For the 1999 FSUS facilities that are no longer comparable to the 2019 FSUS facilities, please explain in which 2019 FSUS facilities those operations/functions are performed.
 - d. The 1999 FSUS contained "certainty" strata for which all facilities in that stratum were sampled.¹⁸ Please explain the reasons why all facilities in each of the 1999 FSUS "certainty" strata were sampled.
 - e. Please specify whether the 2019 FSUS sample included all of the same facilities included in the 1999 FSUS "certainty" strata. If not, please explain and indicate the number and from which 1999 FSUS "certainty" stratum were not included in the 2019 FSUS sample.

¹⁶ Compare 2019 FSUS at 11, 15 with Docket No. R2005-1, USPS-T-13 at 21.

¹⁷ Commission modified table from Docket No. R2005-1, USPS-T-13 at 21.

¹⁸ The 1999 FSUS "certainty" strata are identified in Table 2 by the superscript "a" following the Strata Facility Type name.

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**Table 2
1999 FSUS Characteristics of Population and Sample by Strata**

Strata Number	Strata Facility Type	Interior Square Feet Range	Total Interior Square Feet (non-auxillary)		Number of Facilities	
			Population	Sample	Population	Sample
1	AMC/AMF	All	3,491,435	823,890	84	22
2	AMC/AMF ^a	All	2,339,169	2,339,169	13	13
3	Big >50K	All	16,514,014	4,373,887	183	50
4	BMC	All	9,175,826	3,328,541	33	13
5	BMC ^a	All	1,230,315	1,230,315	1	1
6	Carrier Annex	All	5,176,707	481,930	330	30
7	Finance Station	All	3,023,041	97,962	688	15
8	MPO/SCF - >0-2K	>0-2K	15,683,432	46,824	16,464	50
9	MPO/SCF - >2K-5K	>2K-5K	18,387,449	171,287	5,933	55
10	MPO/SCF - >5K-10K	>5K-10K	17,978,010	390,696	2,531	55
11	MPO/SCF - >10K-20K	>10K-20K	20,435,238	914,227	1,459	65
12	MPO/SCF - >20K	>20K	21,292,445	2,013,843	744	70
13	P&DC/P&DF	All	66,273,688	19,591,435	389	114
14	P&DC/P&DF ^a	All	16,783,595	16,783,595	27	27
15	SCF / AO	All	6,903,334	1,698,437	259	71
16	Station/Branch - > 0-10K	>0-10K	10,385,657	124,813	2,471	30
17	Station/Branch - >10K-20K	>10K-20K	12,039,318	497,449	841	35
18	Station/Branch - >20K-50K	>20K-50K	10,686,884	932,291	398	35
19	Other	All	2,145,887	285,332	151	20
20	BMC Nonhandling	0				
	Total		259,945,444	56,125,923	32,999	771

^a Certainty stratum.
Source: Commission modified table from Docket No. R2005-1, USPS-T-13 at 21.

RESPONSE:

It should be noted that while there is a net reduction of two strata in the 2019 FSUS versus the 1999 FSUS, this reflects the definition of additional strata in the 2019 FSUS for mail processing facilities, offset by fewer strata for delivery and retail facilities.

a. Please see Table I below.

b. - c. As stated above in the response to question 2, the types of facilities that existed in 1999 still exist today, although the number and/or nomenclature may have changed somewhat. There are, however, elements of the 1999 sample design which

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are unclear. For example, it is unclear what specific facility types the "Big > 50K" stratum is supposed to represent. Consequently, there are no facilities from the 2019 study that were incorporated into this stratum in Table I.

It is also unclear why there are 34 facilities listed as NDCs in the 1999 study, given that there are only 21 of those facilities. It is probable that the BMC (NDC) facility count in the 1999 FSUS table included annexes and/or ASFs in addition to the 21 main BMCs. In the 2019 study, the ASFs were categorized with the P&DC/P&DFs because most of those facilities are actually P&DCs and these facilities are not dedicated to performing NDC-related work.

The 1999 sample design also prominently featured the SCF designation in several strata. While some people may refer to a given facility (e.g., a P&DC/F) as an SCF, the term is actually a distribution concept that refers to how mail is processed. The reason the study was structured in that manner is unknown. In looking at the L005 SCF list, there is only one SCF line item that is not specifically related to a mail processing facility. This SCF outlier is the only facility that is included in the SCF / Associate Office stratum in Table I.

Finally, the REF/REC facilities were not sampled in the 1999 study. The one remaining REC has therefore been incorporated into the Other stratum in Table I.

d. The certainty strata in the 1999 study were defined to include "large or specialized" facilities within the AMC/AMF, BMC (now NDC), and P&DC/P&DF facility

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categories. See Docket No. R2005-1, Testimony of Marc A. Smith (USPS-T-13) at 22. Generally, the aim for certainty strata is to reduce sampling variability related to unusual or uncommon sampling units in a heterogeneous population. However, given a sample size, there is a tradeoff between reduced variability for the certainty strata and increased variability for the non-certainty strata due to smaller sample sizes for the latter. The 1999 FSUS documentation does not state more specific rationales for the facilities' inclusion in the certainty strata.

f. The 2019 FSUS mail processing sample design (covering strata S1-S11; see FSUS Report at 11) did not include all facilities from the 1999 study's certainty strata. The 2019 FSUS plant sample design intentionally took a clean sheet approach in light of major changes to mail processing facilities between the two studies.

In the 1999 operating environment, multiple types of letter automation equipment were in use (DBCS, MPBCS, and MLOCR), and automated equipment for non-letter mail was much less broadly deployed across the mail processing system than it is now. As noted in the response to Chairman's Information Request No. 2, question 1(a)(i)-(ii), most AMCs and AMFs from the 1999 study are no longer in operation, the remaining facilities encompass a very small fraction of mail processing space, and the remaining activities are also performed similarly in other types of mail processing plants. Perhaps the most notable equipment distinction among current mail processing facilities affecting the operational distribution of space usage is the presence or absence of FSS equipment.

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Consequently, separate AMC/AMF strata were eliminated in the 2019 FSUS mail processing design. Additionally, the 2019 FSUS implemented both stratification of P&DCs/P&DFs and NDCs between FSS and non-FSS sites, and further added facility size strata for both FSS and non-FSS P&DCs/P&DFs. These differences from the 1999 study reduced the need for large certainty strata as the added stratification dimensions reduced the heterogeneity of facilities within strata.

The four mail processing certainty strata that were defined for the 2019 FSUS (strata S8-S11) were established for specific types of facilities whose operational specializations or other distinctions would make it difficult to efficiently represent them in a random sample, similar in principle to the 1999 study's motivations. There is accordingly some overlap in the two studies' certainty strata. In the 1999 FSUS, ISCs were included as part of the AMC/AMF certainty stratum; the current operational ISCs are included in a separate ISC stratum in the 2019 FSUS. The small number of ISCs and variations in equipment among ISCs make it impractical to conduct less than a certainty sample of ISCs. Additionally, the facility included in the BMC certainty stratum in the 1999 FSUS was included with certainty in the 2019 FSUS.

The sites from the 1999 FSUS P&DC/P&DF certainty stratum were not sampled with certainty in the 2019 FSUS. Those sites (or successor facilities) were eligible for sampling in the 2019 study as members of the sample frames for the appropriate FSS and size strata.

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**Table I:
2019 FSUS Data With 1999 Sample Design**

Facility Type	Interior Sq Ft Range	Population Net Int Sq Ft	Sample Net Int Sq Ft	Population Facilities	Sample Facilities
AMC / AMF	All	248,875	0	4	0
AMC / AMF Certainty Stratum (ISCs)	All	2,825,542	2,825,542	5	5
Big > 50,000 sq ft	All	0	0	0	0
NDC	All	8,176,876	4,059,498	17	8
NDC Certainty Stratum	All	3,429,072	3,429,072	4	4
Carrier Annex	All	9,510,135	281,316	509	14
Finance Station	All	6,995,081	0	1,695	0
Main Office < 2,000 sq ft	< 2,000	14,464,828	11,788	14,375	10
Main Office 2,000 sq ft - 5,000 sq ft	2,000 - 5,000	18,698,263	48,462	6,028	13
Main Office 5,000 sq ft - 10,000 sq ft	5,000 - 10,000	19,053,542	134,619	2,733	19
Main Office 10,000 sq ft - 20,000 sq ft	10,000 - 20,000	21,958,401	372,440	1,532	25
Main Office > 20,000 sq ft	> 20,000	39,525,955	1,117,626	1,024	27
P&DC / P&DF	All	75,280,777	35,332,036	239	85
P&DC / P&DF Certainty Stratum	All	0	0	0	0
SCF / Associate Office	All	16,950	0	1	0
Station / Branch < 10,000 sq ft	All	6,127,441	68,205	1,157	10
Station / Branch 10,000 sq ft - 20,000 sq ft	< 10,000	12,977,440	308,576	870	21
Station / Branch > 20,000 sq ft	10,000 - 20,000	18,051,066	304,383	562	11
Other (REC)	> 20,000	74,306	74,306	1	1
NDC Non Handling	All				
Mail Processing Subtotal		90,035,448	45,720,454	270	103
Delivery and Retail Subtotal		167,379,102	2,647,415	30,486	150
Grand Total		257,414,550	48,367,869	30,756	253

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- 13.** The Postal Service notes that in the 2019 FSUS, the delivery and retail facilities sample sites were not randomly selected and were based on a limited number of delivery and retail facility drawings stored only on the Facility File Share Drive. 2019 FSUS at 14-15. In total, the delivery and retail facility sample included 150 facilities from 35 states and 45 Districts (the Postal Service notes that “the sample sizes were not determined by any empirical means”). 2019 FSUS at 15.
- a. Please explain the similarities and differences in the space for the retail and delivery facilities on the Facility File Share Drive and those not on the Facility File Share Drive.
 - b. Please specify by type of delivery and retail facility (using the same 1999 FSUS facility type and size stratum groups) the number of delivery and retail facilities available on the Facility File Share Drive.
 - c. Please discuss the reasons for the increase in the number of Postal retail and delivery facilities classified as “stations and branches” between 1999 and 2019.¹⁹

RESPONSE:

a. It is not anticipated that the delivery and retail facility drawings that are stored on the shared drive would differ substantially from those facility drawings that are not stored on the shared drive. Delivery and retail facilities contain a relatively small number of operations and those operations were consistently observed in the drawings that were included in the FSUS sample. There is no reason to expect that the drawings for other delivery and retail facilities would be substantially different from those included in the FSUS.

b. When the study was initiated, an evaluation of the delivery and retail facility drawings that were available on the shared drive was conducted. Some drawings were

¹⁹ The 1999 FSUS shows a total of 3,710 stations and branches in Docket No. R2005-1, USPS-T-13 at 21 as compared to 4,280 in the 2019 FSUS.

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found to be incomplete. The number of usable drawings that were detected in the original storage location are shown below in Table J. The Table J drawings are expressed using the 1999 strata format for delivery and retail facilities. In addition, the 2019 FSUS facilities that were actually sampled are expressed in that format. As noted in the FSUS report, there were no finance station drawings found on the shared drive. FSUS Report at 26. In addition, there were no SCF / Associate Office drawings located on the shared drive. As stated above in the response to question 12, it is unclear why this SCF / Associate Office stratum was included in the 1999 FSU study. In looking at the L005 SCF label list, there is only one SCF line item that is not directly associated with a mail processing facility.

**Table J:
Usable Delivery Unit Drawings**

Facility Type	Usable Drawings	Percent	Sampled Drawings	Percent
Carrier Annex	25	7.79%	14	9.33%
Finance Station	0	0.00%	0	0.00%
Main Office < 2,000 sq ft	15	4.67%	10	6.67%
Main Office 2,000 sq ft - 5,000 sq ft	23	7.17%	13	8.67%
Main Office 5,000 sq ft - 10,000 sq ft	39	12.15%	19	12.67%
Main Office 10,000 sq ft - 20,000 sq ft	53	16.51%	25	16.67%
Main Office > 20,000 sq ft	55	17.13%	27	18.00%
SCF / Associated Office	0	0.00%	0	0.00%
Station / Branch < 10,000 sq ft	35	10.90%	10	6.67%
Station / Branch 10,000 sq ft - 20,000 sq ft	38	11.84%	21	14.00%
Station / Branch > 20,000 sq ft	38	11.84%	11	7.33%
Total	321	100.00%	150	100.00%

c. In the 2019 FSUS, the eFMS data showed that there were a total of 4,280 stations and branches. As stated in the 2019 FSUS Report, the facility subtype data

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from the facility database (FDB) were used to organize the delivery and retail data by facility type. FSUS Report at 5. All FDB records for postal finance stations were classified as stations or branches. Consequently, the 4,280 figure included the finance stations.

In contrast, the 1999 FSUS listed the finance stations under a separate stratum. The total number of stations and branches from the 1999 study were therefore equal to the 688 finance stations plus the 3,710 facilities in the three station/branch strata, for a total of 4,398 stations and branches. There are therefore 2.68 percent fewer stations and branches in the 2019 FSUS than there were in the 1999 FSUS.

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- 14.** The Postal Service recommends that the space for the “MANP” and “PRIORITY” operations be combined and “the space for these operations be piggybacked in aggregate, similar to the manner in which the space for the APBS parcel and bundle sorting operations are piggybacked in aggregate.” 2019 FSUS at 32.
- a. Please provide the figures and show “the manner in which the space for the APBS parcel and bundle sorting operations are piggybacked in aggregate.” *Id.*
 - b. If the response to subpart a. has been provided in the materials included with the Petition, please specify the related workbook and location within the workbook.

RESPONSE:

a. Please see Docket No. ACR2019, USPS-FY19-25, file “MPPGBY19PRC.xlsx,” worksheet “Facility Related Costs,” cells D11-D12. In this calculation, the imputed rents for a common pool of parcel and bundle sorting equipment space is distributed to APBS Priority and APBS Bundle cost pools based on the relative cost shares for the respective labor cost pools. Thus, of the \$60.264 million in imputed rents (worksheet “Facility Space Data,” cell L12) for the space occupied by parcel and bundle sorting equipment at MODS plants, 83.6 percent (worksheet “Cost Ratios,” cell G6; the APBS Priority share of APBS Priority and APBS Bundle labor costs) is assigned to APBS Priority and 16.4 percent is assigned to APBS Bundle.

b. Not applicable.

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- 15.** The Postal Service states that consistent with the current methodology, the new facility space usage study results “would also be used as inputs to the operations-specific piggyback factor analysis that was last filed in Docket No. ACR2018, Library Reference USPS-FY18-25. Petition at 4. Under the current methodology, facility space square feet and rents by category are used to develop mail processing piggyback factors to augment mail processing cost pool and operations labor costs.²⁰
- a. Please describe the impact of the Proposal Nine methodology on the mail processing piggyback factors. For material changes due to Proposal Nine, please discuss the specific facility workbook inputs that had the largest impact on the mail processing piggyback factors.
 - b. Please update the Docket No. ACR2018, Library Reference USPS-FY18-25, Excel file “MPPGBY19PRC.xlsx” with the new facility space usage study results and related changes incorporated within the file.

RESPONSE:

a. The table below shows that the overall piggyback ratio changed from 1.69 to 1.70 (an increase of 0.64 percent). The mail processing specific operations costs increased by \$115 million. The table below shows that five of the pools have major cost impacts (pools with a change in cost of at least \$50 million).

²⁰ Docket No. ACR2018, Library Reference USPS-FY18-8, December 28, 2018, PDF file “USPS-FY18-8 Preface.pdf” at 2; Library Reference USPS-FY18-25, December 28, 2018, PDF file “USPS-FY18-25.Preface.pdf” at 1. See Docket No. ACR2018, Library Reference USPS-FY18-25, December 28, 2018, Excel file “MPPGBY18PRC.xlsx.”

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**Table K:
FSUS Related Impact – Mail Processing Piggyback Factors**

CATEGORY BY COST POOLS	Total MP Specific Operations Costs \$ (000)			Piggyback Ratios		
	FSUS	ACR2018	Difference	FSUS	ACR2018	Difference (%)
BCS/DBCS	2,965,480	2,908,326	57,155	1.973	1.935	1.97%
Platform	1,810,975	1,912,856	(101,882)	1.481	1.564	-5.33%
NON-MODS: Allied	996,565	1,252,136	(255,572)	1.661	2.087	-20.41%
NON-MODS: Distribution to P.O. Box	744,407	555,396	189,011	1.852	1.381	34.03%
NON-MODS: Manual Parcel	1,639,676	1,454,668	185,008	1.599	1.419	12.72%
TOTAL (All Categories)	18,009,241	17,893,859	115,382	1.701	1.690	0.64%

- 1) MPPGBY18PRC.PROP9.xls (MP Piggybacks Tab)
2) USPS-FY18-25, MPPGBY18PRC.xls (MP Piggybacks)

The table below shows the change in space for the pools with major impact on their piggyback ratios.

**Table L:
FSUS Related Impact – Square Feet**

CATEGORY BY COST POOLS	FSUS ¹	ACR2018 ²	Difference	Difference (%)
BCS/DBCS	12,853,171	9,377,577	3,475,594	37.06%
Platform	7,942,716	13,395,877	(5,453,162)	-40.71%
NON-MODS: Allied	13,645,140	30,285,177	(16,640,037)	-54.94%
NON-MODS: Distribution to P.O. Box	12,250,838	1,146,264	11,104,574	968.76%
NON-MODS: Manual Parcel	19,141,118	6,064,403	13,076,715	215.63%
TOTAL All Categories	306,309,966	295,559,668	10,750,298	3.64%

- 1) FACILITY19.PROPA.xls (FSUS Facility Data Tab)
2) USPS-FY18-8, FACILITY18.xls (FY 2018 Facility Data Tab)

b. The requested file is being provided in folder USPS-RM2020-1-2,
MPPGBY18PRC.PROP9.xlsx.

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16. The Postal Service states that the 2019 FSUS “team was able to utilize tools that were not available during the previous study (e.g., webEOR, the Facility File Share server), which enhanced the accuracy of this study.” 2019 FSUS at 33-34. The Postal Service notes that “[t]he tasks that had the highest coefficient of variation estimates were typically those operations or functions for which small amounts of space were sporadically found on the facility layouts.” *Id.* at 33. Please refer to Table 3 below illustrating mostly increases over the 1999 FSUS in the coefficients of variation (CV) for relatively large space categories in the 2019 FSUS for the following questions.

**Table 3
Selected 2019 FSUS and 1999 FSUS Space Categories, Comparison of
Coefficients of Variation**

Space Category No.	Operation/Function	2019 FSUS Estimated Gross Square Feet	Coefficient of Variation (CV)	
			2019 FSUS	1999 FSUS
12	MODS 17 1CANCEL	2,668,509	5.965%	4.000%
34	NDCS 17 PLA	1,960,681	11.319%	5.000%
41	NONMODS IOCS BULKACC	1,673,356	17.501%	6.400%
43	NONMODS IOCS CFS	4,425,592	11.912%	9.900%
44	NONMODS IOCS D.PO BOX	12,250,838	8.799%	NA
46	NONMODS IOCS MANF	4,293,378	11.513%	4.800%
47	NONMODS IOCS MANL	3,748,355	14.261%	7.200%
48	NONMODS IOCS MANP	19,141,118	6.124%	5.900%
49	NONMODS IOCS MISC	1,960,199	39.586%	7.000%
52	Window Service	18,220,608	8.932%	2.700%
54	Post Office Boxes / Caller Service	12,074,197	8.668%	3.100%
56	City Carrier	35,255,807	9.557%	4.100%
57	Rural Carrier	21,330,487	10.443%	6.900%
58	Office Space / Corridors	24,029,897	6.623%	3.800%
61	Employee Facilities	16,612,468	5.003%	1.900%
65	HQ, HQ Field Related & Area Offices	6,849,016	25.186%	NA
Source: Commission modified table from 2019 FSUS at 31.				

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- a. Please discuss the reason(s) for the increase in the CV for the space categories 12 ("MODS 17 1CANCEL") and 34 ("NDCS 17 PLA").
- b. Please explain why the space categories 44 ("NONMODS IOCS D.PO BOX") and 65 ("HQ, HQ Field Related & Area Offices") have "NA" in the CV column.
- c. Please discuss the reason(s) for the increase in the CVs for the remaining space categories shown in Table 3.
- d. Please describe any analysis related to the retail and delivery convenience sample and its contribution to the increased CVs for the relevant space categories shown in Table 3.
- e. Please discuss and explain whether or not what appears to be the reduced number of facility sampling strata in the 2019 FSUS contributed to the increase in the CVs for the space categories shown in Table 3.
- f. Please discuss and explain whether or not the reduced number of facilities sampled in the 2019 FSUS over the number sampled in the 1999 FSUS contributed to the increase in the CVs for the space categories shown in Table 3.²¹

RESPONSE:

a. The increased CV for space category 12 (MODS 17 1CANCEL, MODS plant space for cancellation and related operations) is due in part to the consolidation of outgoing operations, and specifically cancellation operations, into a smaller number of facilities. Plants that no longer cancel their own outgoing mail would be expected to have less space utilized for culling and canceling equipment, increasing site-to-site variability of cancellation-related space within the plant sampling strata. In contrast, as

²¹ The 1999 FSUS sampled a total of 771 facilities (see Table 2, *supra* excerpted from Docket No. R2005-1, USPS-T-13 at 21). The 2019 FSUS sampled a total of 247 facilities between the mail processing (97) and retail and delivery (150) facilities. 2019 FSUS at 11, 15.

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of the 1999 study, most or all P&DCs and P&DFs had significant cancellation operations and support space.

These operational changes reflect the fact that First-Class Single Piece letter volumes have decreased significantly over time. As has been stated in recent ACRs, the Postal Service has removed AFCS/AFCS200 equipment from the field because it is no longer needed. These removals also likely had an impact on the CV results.

It is unclear why the CV for space category 34 (NDCS 17 PLA, NDC platform space) increased. Unlike P&DC/P&DFs, NDCs do not contain platform space that is physically separated from the work room floor space. In fact, the platform fields (23 and 24) in the "space survey" portion of eFMS do not contain any space values for many NDCs.

The 1999 FSUS did not discuss the procedures that were used to measure NDC platform space, so it is difficult to make any comparison. In the 2019 FSUS study, the space between the dock doors and the "tow line" used to move containers throughout NDCs was generally classified as platform space. As was the case with P&DC/P&DFs, however, portions of this space could have been used for staging or manual postal operations, so the amount of space that was designated as platform space varied from facility to facility. Finally, many NDC induction mechanisms are located a short distance from the dock doors, which would have affected the amount of space that was classified as formal platform space at a given facility.

In addition, one sample facility had a relatively high fraction of its total space in the platform category due to a large annex used exclusively for cross-docking activities,

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which was correctly associated with the NDC platform space cost pool. Another sample facility had a relatively low fraction of its total space associated with the platform.

b. The entries are "NA" because there were no reported CVs from the 1999 FSUS for the two space categories in question. At the time of the 1999 FSUS, the mail processing labor cost model had no labor cost pool for space category 44 (non-MODS PO Box distribution), so no corresponding space was separately estimated at the time. The equivalent to space category 65 (HQ offices, etc.) appears to have been derived entirely from census data in the 1999 FSUS, and the zero CV was not reported. Note that in the 2019 FSUS report, the CV for space category 65 only reflects the sample-based portion of the category from offices co-located with mail processing or delivery/retail facilities. Most of the space in the cost pool is derived from eFMS census data for dedicated offices with zero CV. Including the census-based space, the overall CV for category 65 would be 1.89 percent.

c. Not surprisingly, the Postal Service has experienced a great deal of operational change over the past twenty years, which likely had an impact on the results for some of these categories.

For example, operational changes in the handling of UAA mail likely affect the CV for the non-MODS IOCS CFS space category. The operations performed at CFS units were consolidated into a smaller number of facilities in the late 1990s and early 2000s. Consequently, the presence of CFS space had more variability across facilities in the 2019 FSUS when compared to 1999. The introduction subsequent to the 1999 FSUS of the Postal Automation Redirection System (PARS), the flats PARS (FPARS),

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and the remote forwarding system (RFS) also have contributed to a reduction in CFS units.

In the 2019 FSUS, delivery and retail space was mapped to the non-MODS MISC cost pool when it did not appear to be related to any of the other non-MODS space categories. During the data collection process, this occurred relatively rarely, in part because several additional non-MODS labor cost pools have been incorporated in the mail processing cost model. It is therefore not surprising that the CV value for this space category increased.

In general, there are three factors that could have also contributed to the increased CV values for all the space categories not discussed above in the responses to parts a and b: smaller sample size for delivery and retail (D&R) facilities compared to the 1999 FSUS, fewer D&R strata, and changes in the space pools themselves.

Varying sample size by a constant proportion would be expected to increase the measured standard errors (or CVs) in inverse proportion to the square root of the sample size change. For example, reducing sample size by half would increase expected CVs by a factor of 1.414 (the square root of 2). The reduction of the D&R sample from 490 facilities to 150 would, accordingly, be expected to increase CVs by a factor of 1.81 or 81 percent (the square root of 490/150). In practice, the actual change in CVs may vary from the expectation due to properties of the sample data, but excess increases in the CVs would be indicative of effects of stratification changes, among other factors.

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Since stratification can improve sampling efficiency to the extent it can be used to group sampling units into relatively homogeneous groups, it is possible that reduced stratification contributes to some of the observed increase in CVs. Insofar as stratification is typically a tool for improving the efficiency of sample-based estimates, rather than a means of mitigating bias, the effect of reduced stratification on the space estimates themselves is ambiguous.

Finally, some of the changes in CVs reflect differences to the underlying space pools and/or their definitions between the 1999 and 2019 studies, especially for the non-MODS mail processing categories and the Post Office Box category 54. The current non-MODS labor cost model defines several additional cost pools compared to the models in the late 1990s. To the extent some corresponding space pools from the 1999 FSUS were subdivided as a result, such as Post Office Box space (i.e., distinguishing workroom space for distribution of mail to boxes versus space for boxes and box lobbies), the relative standard errors for the smaller space categories would tend to increase, given sample size. In other cases, operations whose space utilization has grown (expectedly), such as non-MODS manual parcel costs, have seen CVs increase by much less than the expectation based on sample size changes.

d. - f. The delivery and retail sample does not contribute facility space for the MODS 1CANCEL and NDC PLA pools, and is a minor contributor to the HQ-related space shown in the table. See the responses to parts a. and b. above for discussion of those space pools. The remaining space pools shown in the table are primarily derived

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from the delivery and retail sample. Factors affecting the measured CVs are discussed in the response to part c. above.

The Postal Service does not believe that the use of a convenience sample of delivery and retail facilities is, in itself, a contributor to increased CVs. A central practical issue for the study is that the layouts for delivery and retail units are not regularly maintained to the extent that the layouts for the mail processing facilities are maintained. The shared drive contains layouts for every mail processing facility. If delivery and retail facility layouts were readily available for most or all facilities, implementing a stratified random sample would be practical. However, as shown in the response to question 13.b, there were only 321 useable delivery and retail drawings found on the shared drive.

In order to make the best use of the available data, the Postal Service developed a sample which included facilities that varied by size and location as much as possible, given these constraints. In addition, a delivery and retail analysis was conducted in which groups of facilities were randomly removed from the analysis in order to assess the impact on the results. 2019 FSUS Report at 15. This analysis showed that there was very little impact on the results when sites were randomly removed from the analysis. While 150 delivery and retail facilities were included in the sample, the space results by category changed very little after 100 layouts had been processed.

This approach would be more problematic if it were not for the fact that, operationally speaking, delivery units' mail processing operations are relatively homogeneous in nature. The only unique operations currently housed at delivery units

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are ADUS operations, and the 2019 FSUS established a separate stratum for those sites.

Finally, there are no specific standards in terms of what CV value should be acceptable given all the factors that have affected the results. The decline in traditional mail volumes, growth of parcel volumes, and expansion of the delivery network would be expected to have changed the allocation of delivery and retail space across mail processing and delivery operations. The Postal Service urges the Commission to consider the totality of factors that make this study an improvement over the 1999 FSUS, rather than overly relying on CV values. Namely, it is important to consider the changes that were implemented in the 2019 FSUS which likely reduced the non-sampling error and improved the accuracy of the results.

For example, the 1999 FSUS was a field study in which a sample of 771 facilities were selected. Dozens, if not hundreds, of field employees were asked to complete this study. It is unlikely that such a large number of people completed the forms in the exact same manner. In contrast, the 2019 FSUS was completed by a small Headquarters team that established specific methods for processing and analyzing the drawings.

The Headquarters team also relied on electronic data systems (eFMS, FDB, the shared drive, webEOR, and webMODS) to support their work. In 1999, these data sources were not available. Each drawing could therefore be analyzed to ensure that it contained the same operations and equipment as reported to webMODS and webEOR, respectively. In 1999, the study coordinators would have had no way of knowing if there were any problems with the forms they received from the field. In addition, these

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electronic data systems make it easier to analyze how the space values may need to be adjusted over time as equipment is deployed and removed.

Given the technological, operational, and facility changes that have taken place over the past twenty years, the 2019 FSUS space estimates more accurately represent the current operating environment, when compared to the 1999 FSUS space estimates. The Postal Service urges the Commission to approve Proposal Nine so that these results can be used to distribute facility-related costs in future ACRs, as these results constitute an improvement in the quality, accuracy, and completeness of Postal Service cost models.